

REMARKS

In the Office Action, claims 12 and 17 were objected to. Claims 6-12, 14 and 18-20 were rejected under 35 USC §112, first paragraph. Claims 6-12, 14 and 18-20 were rejected under 35 USC §112, second paragraph. Claims 6-12, 14, 18-20 and 31 were rejected under 35 USC §102(b) as being anticipated by Ruschle et al. Claims 6-12, 14, 18-19 and 31 were rejected above under 35 USC §102(b) as being anticipated by Jacobsen et al.

In the Ruschle et al patent, a gripper is disclosed having a first and a second member. The first member 18 is designed to be movable perpendicular to the longitudinal tool axis.

However, the second member 18 is not movable in the direction of the longitudinal axis of the tool. The first, stationary member 15 of the gripper is here adapted exactly to the tool diameter of the tool 11 in order to be able to guide it in a groove, an indentation or the like. It is in particular disadvantageous in the solution of Ruschle et al that the first, stationary member 15 of the gripper is designed so long that it projects in the fixed gripped position (about 2/3 of the diameter of the tool shank) beyond the shank of the tool. This obstructs in particular the delivery to another gripper, for example, in a re-gripping system. A clamping of the shank in the sense of the present invention which is achieved by the additional, longitudinally movable embodiment of the second gripper member is not disclosed by Ruschle et al, either.

The Jacobsen et al patent discloses a very expensive three gripper members solution, two grippers being movable in the direction of the longitudinal axis of the tool shank and only one member being movable in the direction of the longitudinal axis as well as perpendicular to the axis of the tool shank. The embodiment is very complicated and a central gripping and delivery of the tool to another gripper does not become possible by this solution. Also the first and the second gripper members are designed here in the sense of the definition of the present patent application in such a way that they have to grip at least over the semi-diameter of the tool shank in order to be able to fix it. For a re-gripping system the arrangement according to Jacobson et al is absolutely not suited.

Based upon the state of the art, claim 6 has been amended to be distinguished from this state of the art. Claim 6 refers to a gripper for gripping, conveying or delivering of a tool from a tool magazine to a work spindle.

Claim 6 has been amended to include characteristics of the description of the originally filed documents which leads to the result that an effective gripping and delivering of a tool from a tool magazine to a tool spindle becomes possible and simultaneously it is guaranteed that a space-saving and low-effort re-gripping system is provided by means of, for example, two grippers.

According to the originally filed application in the description of Fig. 4 the following has been noted (see page 12, paragraph 3): "Fig. 4 shows that two contact surfaces 14, 14' are provided on the first member 11, in this case the stationary one, and extend at a peripheral angle of approximately 30° with a peripheral spacing of approximately 60° to 90°. Secure supporting of the tool 2 is thus achieved. For radial alignment or securing in position, a position securing means 15, is also provided on the first member 11 and engages in a corresponding recess in the tool."

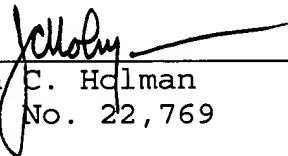
These features have been added to amended claim 6. These features implicate that the first stationary gripper member extends only to a maximum third of the shank diameter of the tool. In particular also Figs. 3, 4, 5a and 5b show this.

Based on the foregoing amendments and remarks, it is respectfully submitted that the claims in the present application, as they now stand, patentably distinguish over the references cited and applied by the Examiner and are, therefore, in condition for allowance. A Notice of Allowance is in order, and such favorable action and reconsideration are respectfully requested.

However, if after reviewing the above amendments and remarks, the Examiner has any questions or comments, he is cordially invited to contact the undersigned attorneys.

Respectfully submitted,

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